IN THE CLAIMS:

Set forth below in ascending order, with status identifiers, is a complete listing of all claims currently under examination. Changes to any amended claims are indicated by strikethrough and underlining. This listing also reflects any cancellation and/or addition of claims.

1. (currently amended) A method of managing utilization of an integrated circuit (IC) processor, comprising:

monitoring processor utilization by an adjustable software video encoder program running on a first thread, the adjustable video encoder program having at least two different performance levels associated with data processing quality of said adjustable software program, wherein each performance level has a different associated IC processor utilization said performance levels comprise encoding levels of the video encoder affecting video quality where each encoding level corresponds to an encoder configuration; and

selecting a performance level to achieve a highest possible video quality while maintaining IC processor utilization of said video encoder within a desired range having a minimum IC processor utilization and a maximum IC processor utilization ~~said adjustable software program to maintain IC processor utilization~~ to maintain an idle thread utilization sufficient to permit another software program to load and execute ~~for said adjustable software program within control constraints on IC processor utilization~~.

2-6. (cancelled)

7. (original) The method of claim 1, further comprising:

measuring IC processor utilization for each of said performance levels to determine a relationship between performance level and IC processor utilization.

8-12. (cancelled)

13. (original) The method of claim 1, further comprising:

in a startup mode of operation, selecting a minimum performance level as a starting performance level.

14. (currently amended) The method of claim 1, further comprising:

in a startup mode of operation, selecting a startup performance level of said adjustable software program to have a startup performance level with a processor utilization below a maximum IC processor utilization by a ~~sufficient~~ margin selected to accommodate differences in processor performance of at least two different types of IC processors.

15. (currently amended) A method of managing processor utilization in a video system, comprising:

providing a software video encoder having a plurality of encoding levels, each encoding level having a different associated processor utilization, where each encoding level corresponds to an encoder configuration;

monitoring processor utilization of said software video encoder and of idle thread utilization; and

determining a greatest encoding level of said video encoder to maintain a minimum idle thread utilization for a range of operation conditions with processor utilization of said software video encoder within a desired range of processor utilization;

wherein said software video encoder automatically adjusts its encoding level to achieve the best video quality while maintaining idle thread utilization for other software programs over a range of operation to achieve a highest possible video quality while maintaining processor utilization of said video encoder within a desired range having a minimum processor utilization and a maximum processor utilization sufficient to maintain an idle thread utilization to permit another software program to load and execute.

16. (original) The method of claim 15, wherein said minimum idle thread utilization is maintained until other of said software programs have a processor CPU utilization greater than a threshold utilization.

17-20. (cancelled)

21. (new) A computer readable medium having computer code comprising instructions selected to:

monitor processor utilization by an adjustable software video encoder program running on a first thread, the adjustable video encoder program having at least two different performance levels associated with data processing quality of said adjustable software program, wherein each performance level where each encoding level corresponds to an encoder configuration related to video quality; and

select a performance level to achieve a highest possible video quality while maintaining IC processor utilization of said video encoder within a desired range having a minimum IC processor utilization and a maximum IC processor utilization sufficient to maintain an idle thread utilization to permit another software program to load and execute.

22. (new) A computer readable medium having computer code comprising instructions selected to:

determine a greatest encoding level of a video encoder to maintain a minimum idle thread utilization for a range of operation conditions with processor utilization of the video encoder within a desired range of processor utilization where each encoding level corresponds to an encoder configuration;

adjusting the encoding level to achieve the best video quality while maintaining idle thread utilization for other software programs over a range of operation to achieve a highest possible video quality while maintaining processor utilization of said video encoder within a desired range having a minimum processor utilization and a maximum processor utilization sufficient to maintain an idle thread utilization to permit another software program to load and execute.